

## MAGNETIC ACTUATOR AND METHOD

## ABSTRACT

A method and assembly for controlling a plunger of a magnetic actuator includes generating a magnetic flux at the plunger that opposes a first bias from a first spring having a first preload. A second spring opposing the first bias is disposed in series communication with the first spring. The second spring has a  
5 second preload less than the first preload and is configured to be adjustable to control the amount of magnetic flux needed to overcome a net total preload opposing the magnetic flux. A second magnetic flux higher than the first magnetic flux is generated biasing the plunger to overcome the net total preload from the first and second springs in series communication.

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